

ABSTRACT OF THE DISCLOSURE

5 A method for determining an affinity of a first
nucleobase-containing sequence for a second
nucleobase-containing sequence includes providing a test
medium containing the first nucleobase-containing sequence and
the second nucleobase-containing sequence, applying a voltage
across the test medium, measuring a test electric current
through the test medium; and determining the affinity by
evaluating whether the test electric current is equivalent to
10 a reference electric current of a reference medium containing
a longer of the first nucleobase-containing sequence and the
second nucleobase-containing sequence. A complex in an
electrically-stimulated phase contains at least two
nucleobase-containing sequences in a medium, wherein the
electrical conductivity of the medium increases linearly
without a plateau as the temperature of the medium approaches
and exceeds a T_m of the complex.